

Db 421 SAASDPTTGKKS DPMCDPTYTTSYGVLTNALPN SPIAGQWFP AQFDQLVANARPAVPTST 480

Qy 481 SSSPPPPPPSPSASPSPSPSPSPSSSPSPSPSPSSSPSPSPSPSPSSSPSPSPSSSPS 540

Db 481 SSSPPPPPPSPSASPSPSPSPSPSSSPSPSPSPSSSPSPSPSPSPSSSPSPSPSSSPS 540

Qy 541 PSPSPSPSPSSSPSPSPSSSPSPSPSPSPSPSSSPSPSPSPSSSPSPSPSPSSSPSPSP 600

Db 541 PSPSPSPSPSSSPSPSPSSSPSPSPSPSPSPSSSPSPSPSPSPSSSPSPSPSPSSSPSP 600

Qy 601 DNQIKPGLQLVNTGSSSVDLSTVTVRYWFTRDGGSSTLVYNCDWAAMGCGNIRASFGSVN 660

Db 601 DNQIKPGLQLVNTGSSSVDLSTVTVRYWFTRDGGSSTLVYNCDWAAMGCGNIRASFGSVN 660

Qy 661 PATPTADTYLQLSFTGGTLAAGGSTGEIQNRVNKSDWSNFTETNDYSYGTNTTFQDWTKV 720

Db 661 PATPTADTYLQLSFTGGTLAAGGSTGEIQNRVNKSDWSNFTETNDYSYGTNTTFQDWTKV 720

Qy 721 TVYVNGVLVWGTEPSGTSPSPTPSPSPSPSPSPGGDVTPPSVPTGLVVTGVSGSSVSLAW 780

Db 721 TVYVNGVLVWGTEPSGTSPSPTPSPSPSPSPSPGGDVTPPSVPTGLVVTGVSGSSVSLAW 780

Qy 781 NASTDNVGVAHYNVYRNGVLVGQPTVTSFTDTGLAAGTAYTYTVA AVDAAGNTSAPSTPV 840

Db 781 NASTDNVGVAHYNVYRNGVLVGQPTVTSFTDTGLAAGTAYTYTVA AVDAAGNTSAPSTPV 840

Qy 841 TATTTSPSPSPPTPTGTTVTDCTPGPNQNGVTSVQGD EYRVQTNEWNSSAQQCLTINTATG 900

Db 841 TATTTSPSPSPPTPTGTTVTDCTPGPNQNGVTSVQGD EYRVQTNEWNSSAQQCLTINTATG 900

Qy 901 AWTVSTANFSGGTGGAPATYPSIYKGCHWGNC TTKNVGMPIQISQIGSAVTSWSTTQVSS 960

Db 901 AWTVSTANFSGGTGGAPATYPSIYKGCHWGNC TTKNVGMPIQISQIGSAVTSWSTTQVSS 960

Qy 961 GAYDVAYDIWTNSTPTTTGQPNGTEIMIWLNSRGGVQPF GSQTATGVTVAGHTWNVWQGG 1020

Db 961 GAYDVAYDIWTNSTPTTTGQPNGTEIMIWLNSRGGVQPF GSQTATGVTVAGHTWNVWQGG 1020

Qy 1021 QTSWKIISYVLTPGATSI SNLDLKAIFADAAARGSLNTSDYLLDVEAGFEIWQGGQGLGS 1080

Db 1021 QTSWKIISYVLTPGATSI SNLDLKAIFADAAARGSLNTSDYLLDVEAGFEIWQGGQGLGS 1080

Qy 1081 NSFVS SVTSGTSSPTSPSPPTPTSPSPPTPTSPSPPTSPSPPTSSPSSSGVACRATYV VNSD 1140

Db 1081 NSFVS SVTSGTSSPTSPSPPTPTSPSPPTPTSPSPPTSPSPPTSSPSSSGVACRATYV VNSD 1140

Qy 1141 WGS GFTATVTVTNTGSRATNGWTVAWSFGGNQTVTNYWNTALTQSGASVTATNLSYNNVI 1200

Db 1141 WGS GFTATVTVTNTGSRATNGWTVAWSFGGNQTVTNYWNTALTQSGASVTATNLSYNNVI 1200

Qy 1201 QPGQSTTFGFNGSYS SGTNAAPTLSCTAS 1228

Db 1201 QPGQSTTFGFNGSYS SGTNAAPTLSCTAS 1228

Title: . US-09-917-383-2

RESULT 2

US-09-917-384-2

; Sequence 2, Application US/09917384

; GENERAL INFORMATION:

; APPLICANT: DING, SHI-YOU

; APPLICANT: ADNEY, WILLIAM S.

; APPLICANT: VINZANT, TODD B.

; APPLICANT: DECKER, STEPHEN R.

; APPLICANT: HIMMEL, MICHAEL E.

; TITLE OF INVENTION: THERMAL TOLERANT CELLULASE FROM ACIDOTHERMUS

; TITLE OF INVENTION: CELLULOLYTICUS

; FILE REFERENCE: 40170.6US01

; CURRENT APPLICATION NUMBER: US/09/917,384

; CURRENT FILING DATE: 2001-07-28

; NUMBER OF SEQ ID NOS: 14

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 2

; LENGTH: 3687

; TYPE: DNA

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Description of Artificial Sequence: Segment of

; OTHER INFORMATION: GuxA

US-09-917-384-2

Query Match 100.0%; Score 3687; DB 34; Length 3687;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 3687; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 ATGGAGCGAACCCAACAATCCGGACGGAAGTGCAGGTACCAGAGAGGAACGACACGAATG 60
      |||
Db      1 ATGGAGCGAACCCAACAATCCGGACGGAAGTGCAGGTACCAGAGAGGAACGACACGAATG 60

Qy     61 CCCGCCATCTCAAAACGGCTGCGAGCCGGCGTCTCGCCGGGGCGGTGAGCATCGCAGCC 120
      |||
Db     61 CCCGCCATCTCAAAACGGCTGCGAGCCGGCGTCTCGCCGGGGCGGTGAGCATCGCAGCC 120

Qy    121 TCCATCGTGCCGCTGGCGATGCAGCATCCTGCCATCGCCGCGACGCACGTGACAATCCC 180
      |||
Db    121 TCCATCGTGCCGCTGGCGATGCAGCATCCTGCCATCGCCGCGACGCACGTGACAATCCC 180

Qy    181 TATGCGGGAGCGACCTTCTTCGTCAACCCGTAAGTGGGCGCAAGAAGTACAGAGCGAAGCG 240
      |||
Db    181 TATGCGGGAGCGACCTTCTTCGTCAACCCGTAAGTGGGCGCAAGAAGTACAGAGCGAAGCG 240

Qy    241 GCGAACCAGACCAATGCCACTCTCGCAGCGAAAATGCGCGTCTGTTTCCACATATTCGACG 300
      |||
Db    241 GCGAACCAGACCAATGCCACTCTCGCAGCGAAAATGCGCGTCTGTTTCCACATATTCGACG 300

Qy    301 GCCGTCTGGATGGACCGCATCGCTGCGATCAACGGCGTCAACGGCGGACCCGGCTTGACG 360
      |||
Db    301 GCCGTCTGGATGGACCGCATCGCTGCGATCAACGGCGTCAACGGCGGACCCGGCTTGACG 360

Qy    361 ACATATCTGGACGCCGCCCTCTCCCAGCAGCAGGGAACCACCCCTGAAGTCATTGAGATT 420
      |||
Db    361 ACATATCTGGACGCCGCCCTCTCCCAGCAGCAGGGAACCACCCCTGAAGTCATTGAGATT 420

Qy    421 GTCATCTACGATCTGCCGGGACGCGACTGCGCGGCGCTCGCCTCCAACGGCGAACTGCCC 480
      |||
Db    421 GTCATCTACGATCTGCCGGGACGCGACTGCGCGGCGCTCGCCTCCAACGGCGAACTGCCC 480

Qy    481 GCTACGGCAGCAGGTTTGCAGACCTATGAAACGCAGTACATCGATCCGATTGCGAGTATC 540
      |||
Db    481 GCTACGGCAGCAGGTTTGCAGACCTATGAAACGCAGTACATCGATCCGATTGCGAGTATC 540
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Qy	541	CTGAGCAATCCGAAGTACTCCAGCCTGCGGATCGTGACGATCATTGAGCCGGACTCGCTG	600
Db	541	CTGAGCAATCCGAAGTACTCCAGCCTGCGGATCGTGACGATCATTGAGCCGGACTCGCTG	600
Qy	601	CCAAACGCGGTCACCAATATGAGCATTCAAGCGTGTGCAACGGCGGTGCCGTATTACGAG	660
Db	601	CCAAACGCGGTCACCAATATGAGCATTCAAGCGTGTGCAACGGCGGTGCCGTATTACGAG	660
Qy	661	CAAGGCATCGAGTACGCGCTCACGAAATTGCACGCCATTCCGAACGTGTACATCTACATG	720
Db	661	CAAGGCATCGAGTACGCGCTCACGAAATTGCACGCCATTCCGAACGTGTACATCTACATG	720
Qy	721	GACGCCGCCCACTCCGGCTGGCTTGGGTGGCCCAATAATGCCAGCGGATACGTACAGGAA	780
Db	721	GACGCCGCCCACTCCGGCTGGCTTGGGTGGCCCAATAATGCCAGCGGATACGTACAGGAA	780
Qy	781	GTCCAGAAGGTCCTCAACGCGAGCATCGGGGTCAACGGCATCGACGGCTTCGTACCAAC	840
Db	781	GTCCAGAAGGTCCTCAACGCGAGCATCGGGGTCAACGGCATCGACGGCTTCGTACCAAC	840
Qy	841	ACGGCGAATTACACGCCGTTGAAGGAGCCGTTTCATGACCGCCACCCAGCAGGTCGGCGGA	900
Db	841	ACGGCGAATTACACGCCGTTGAAGGAGCCGTTTCATGACCGCCACCCAGCAGGTCGGCGGA	900
Qy	901	CAGCCGGTGGAGTCGGCGAATTTCTACCAGTGGAATCCTGACATCGACGAAGCCGACTAC	960
Db	901	CAGCCGGTGGAGTCGGCGAATTTCTACCAGTGGAATCCTGACATCGACGAAGCCGACTAC	960
Qy	961	GCGGTTGACTTGTACTCGCGGCTCGTCGCCGCTGGCTTTCCAAGCAGCATCGGCATGCTC	1020
Db	961	GCGGTTGACTTGTACTCGCGGCTCGTCGCCGCTGGCTTTCCAAGCAGCATCGGCATGCTC	1020
Qy	1021	ATCGACACCTTACGCAACGGTTGGGGTGGTCCGAACGAACCAACAGGCCCGAGCACC	1080
Db	1021	ATCGACACCTTACGCAACGGTTGGGGTGGTCCGAACGAACCAACAGGCCCGAGCACC	1080
Qy	1081	ACCGATGTCAACACCTTCGTCAACCAGTCGAAGATTGACCTTCGGCAGCACCGCGGCTG	1140
Db	1081	ACCGATGTCAACACCTTCGTCAACCAGTCGAAGATTGACCTTCGGCAGCACCGCGGCTG	1140
Qy	1141	TGGTGCAACCAGAACGGTGCGGGCCTCGGCCAGCCGCCGAGGCAAGCCCGACGGACTTC	1200
Db	1141	TGGTGCAACCAGAACGGTGCGGGCCTCGGCCAGCCGCCGAGGCAAGCCCGACGGACTTC	1200
Qy	1201	CCGAACGCGCACCTCGACGCGTATGTCTGGATCAAGCCGCCGGGTGAGTCGGACGGCACA	1260
Db	1201	CCGAACGCGCACCTCGACGCGTATGTCTGGATCAAGCCGCCGGGTGAGTCGGACGGCACA	1260
Qy	1261	AGCGCTGCGAGCGATCCGACAACCTGGCAAGAAGTCGGACCCCATGTGCGACCCGACGTAC	1320
Db	1261	AGCGCTGCGAGCGATCCGACAACCTGGCAAGAAGTCGGACCCCATGTGCGACCCGACGTAC	1320
Qy	1321	ACGACGTCTGACGGGGTACTGACCAACGCGTTACCGAACTCCCCGATCGCCGGCCAGTGG	1380
Db	1321	ACGACGTCTGACGGGGTACTGACCAACGCGTTACCGAACTCCCCGATCGCCGGCCAGTGG	1380
Qy	1381	TTCCCGGCGCAGTTTGACCAGCTTGTCTGCGAACGCACGGCCAGCGGTGCCGACGTGACC	1440
Db	1381	TTCCCGGCGCAGTTTGACCAGCTTGTCTGCGAACGCACGGCCAGCGGTGCCGACGTGACC	1440
Qy	1441	AGCTCGAGCCCGCCGCCTCCGCCGCCGAGTCCGTCGGCTTCGCCGAGTCCGAGCCCGAGT	1500
Db	1441	AGCTCGAGCCCGCCGCCTCCGCCGCCGAGTCCGTCGGCTTCGCCGAGTCCGAGCCCGAGT	1500
Qy	1501	CCGAGCCCGAGCAGCTCGCCATCGCCGTCGCCGCTCTCCGAGCTCGAGCCCGTCTCCGTCG	1560
Db	1501	CCGAGCCCGAGCAGCTCGCCATCGCCGTCGCCGCTCTCCGAGCTCGAGCCCGTCTCCGTCG	1560

Qy	1561	CCGAGCCCGAGTCCGAGCCCGAGTAGCTCGCCGTCGCCGTCTCCGAGCTCGAGCCCGTCT	1620
Db	1561	CCGAGCCCGAGTCCGAGCCCGAGTAGCTCGCCGTCGCCGTCTCCGAGCTCGAGCCCGTCT	1620
Qy	1621	CCGTCGCCGAGCCCGAGTCCGAGCCCGAGTAGCTCGCCGTCGCCGTCTCCGAGCTCGAGC	1680
Db	1621	CCGTCGCCGAGCCCGAGTCCGAGCCCGAGTAGCTCGCCGTCGCCGTCTCCGAGCTCGAGC	1680
Qy	1681	CCGTCTCCGTGCGCCGAGCCCGAGTCCGAGCCCGAGTAGCTCGCCGTCGCCGTCTCCGACG	1740
Db	1681	CCGTCTCCGTGCGCCGAGCCCGAGTCCGAGCCCGAGTAGCTCGCCGTCGCCGTCTCCGACG	1740
Qy	1741	TCGTGCGCCGGTGTGCGGTGGGCTGAAGGTGCAGTACAAGAACAATGATTTCGGCGCCGGGT	1800
Db	1741	TCGTGCGCCGGTGTGCGGTGGGCTGAAGGTGCAGTACAAGAACAATGATTTCGGCGCCGGGT	1800
Qy	1801	GATAACCAGATCAAACCGGGTCTCCAGTTGGTGAATACCGGGTCGTGCTCGGTGGATTTCG	1860
Db	1801	GATAACCAGATCAAACCGGGTCTCCAGTTGGTGAATACCGGGTCGTGCTCGGTGGATTTCG	1860
Qy	1861	TCGACGGTGACGGTGCGGTACTGGTTCACCCGGGATGGTGGGTTCGTGACACTGGTGTAC	1920
Db	1861	TCGACGGTGACGGTGCGGTACTGGTTCACCCGGGATGGTGGGTTCGTGACACTGGTGTAC	1920
Qy	1921	AACTGTGACTGGGCGGCGATGGGGTGTGGGAATATCCGCGCCTCGTTTCGGCTCGGTGAAC	1980
Db	1921	AACTGTGACTGGGCGGCGATGGGGTGTGGGAATATCCGCGCCTCGTTTCGGCTCGGTGAAC	1980
Qy	1981	CCGGCGACGCCGACGGCGGACACCTACCTGCAGTTGTCTGTTCACTGGTGGAACGTTGGCC	2040
Db	1981	CCGGCGACGCCGACGGCGGACACCTACCTGCAGTTGTCTGTTCACTGGTGGAACGTTGGCC	2040
Qy	2041	GCTGGTGGGTGACGGGTGAGATTCAAAACCGGGTGAATAAGAGTGAAGTGGTTCGAATTC	2100
Db	2041	GCTGGTGGGTGACGGGTGAGATTCAAAACCGGGTGAATAAGAGTGAAGTGGTTCGAATTC	2100
Qy	2101	ACCGAGACCAATGACTACTCGTATGGGACGAACACCACCTTCAGGACTGGACGAAGGTG	2160
Db	2101	ACCGAGACCAATGACTACTCGTATGGGACGAACACCACCTTCAGGACTGGACGAAGGTG	2160
Qy	2161	ACGGTGTACGTCAACGGCGTGTGGTGTGGGGGACTGAACCGTCCGGCACCAGCCCCAGC	2220
Db	2161	ACGGTGTACGTCAACGGCGTGTGGTGTGGGGGACTGAACCGTCCGGCACCAGCCCCAGC	2220
Qy	2221	CCCACACCATCCCCGAGCCCGAGCCCGAGCCCGAGCCCGGGTGGGGATGTGACGCCGCCG	2280
Db	2221	CCCACACCATCCCCGAGCCCGAGCCCGAGCCCGAGCCCGGGTGGGGATGTGACGCCGCCG	2280
Qy	2281	AGTGTGCCGACCGGCTTGGTGGTGACGGGGGTGAGTGGGTCGTGCGGTGTCGTTGGCGTGG	2340
Db	2281	AGTGTGCCGACCGGCTTGGTGGTGACGGGGGTGAGTGGGTCGTGCGGTGTCGTTGGCGTGG	2340
Qy	2341	AATGCGTCGACGGATAACGTGGGGGTGGCGCATTACAACGTGTACCGCAACGGGGTGTG	2400
Db	2341	AATGCGTCGACGGATAACGTGGGGGTGGCGCATTACAACGTGTACCGCAACGGGGTGTG	2400
Qy	2401	GTGGGCCAGCCGACGGTGACCTCGTTCACCGACACGGGTTTGGCCGCGGGAACCGCGTAC	2460
Db	2401	GTGGGCCAGCCGACGGTGACCTCGTTCACCGACACGGGTTTGGCCGCGGGAACCGCGTAC	2460
Qy	2461	ACCTACACGGTGGCCGCGGTGGACGCTGCGGGTAACACCTCCGCCCCATCCACCCCCGTC	2520
Db	2461	ACCTACACGGTGGCCGCGGTGGACGCTGCGGGTAACACCTCCGCCCCATCCACCCCCGTC	2520
Qy	2521	ACCGCCACCACGAGTCCCAGCCCCAGCCCCACGCCGACGGGGACCGGTACCGAC	2580

Db 2521 ACCGCCACCACCACGAGTCCCAGCCCCAGCCCCACGCCGACGGGGACCACGGTCACCGAC 2580
 Qy 2581 TGCACGCCCCGGTCCTAACCAGAATGGTGTGACCAGCGTGCAGGGCGACGAATACCGGGTG 2640
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 2581 TGCACGCCCCGGTCCTAACCAGAATGGTGTGACCAGCGTGCAGGGCGACGAATACCGGGTG 2640
 Qy 2641 CAGACCAATGAGTGAATTCGTGCGGCCAGCAGTGCCTCACCATCAATACCGCGACCGGT 2700
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 2641 CAGACCAATGAGTGAATTCGTGCGGCCAGCAGTGCCTCACCATCAATACCGCGACCGGT 2700
 Qy 2701 GCCTGGACGGTGAGCACTGCGAACTTCAGCGGTGGGACCGGCGGTGCGCCCGCGACGTAT 2760
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 2701 GCCTGGACGGTGAGCACTGCGAACTTCAGCGGTGGGACCGGCGGTGCGCCCGCGACGTAT 2760
 Qy 2761 CCGTCGATCTACAAGGGCTGCCACTGGGGCAACTGCACCACGAAGAACGTCGGGATGCCG 2820
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 2761 CCGTCGATCTACAAGGGCTGCCACTGGGGCAACTGCACCACGAAGAACGTCGGGATGCCG 2820
 Qy 2821 ATTCAGATCAGTCAGATTGGTTCGGCTGTGACGTCGTGGAGTACGACGCAGGTGTCGTCG 2880
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 2821 ATTCAGATCAGTCAGATTGGTTCGGCTGTGACGTCGTGGAGTACGACGCAGGTGTCGTCG 2880
 Qy 2881 GGCGCGTATGACGTGGCCTACGACATTTGGACGAACAGTACCCCAACGACAACCGGTGAG 2940
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 2881 GGCGCGTATGACGTGGCCTACGACATTTGGACGAACAGTACCCCAACGACAACCGGTGAG 2940
 Qy 2941 CCAAACGGTACCGAAATCATGATTTGGCTGAATTCGCGTGGTGGGGTGCAGCCGTTTCGGG 3000
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 2941 CCAAACGGTACCGAAATCATGATTTGGCTGAATTCGCGTGGTGGGGTGCAGCCGTTTCGGG 3000
 Qy 3001 TCGCAGACAGCGACGGGTGTGACGGTCGCTGGTCACACGTGGAATGTCTGGCAGGGTCAG 3060
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 3001 TCGCAGACAGCGACGGGTGTGACGGTCGCTGGTCACACGTGGAATGTCTGGCAGGGTCAG 3060
 Qy 3061 CAGACCTCGTGGAAGATTATTTCTACGTCCTGACCCCCGGTGCGACGTCGATCAGTAAT 3120
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 3061 CAGACCTCGTGGAAGATTATTTCTACGTCCTGACCCCCGGTGCGACGTCGATCAGTAAT 3120
 Qy 3121 CTGGATTTGAAGGCGATTTTCGCGGACGCCCGGGCACGCGGGTCGCTCAACACCTCCGAT 3180
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 3121 CTGGATTTGAAGGCGATTTTCGCGGACGCCCGGGCACGCGGGTCGCTCAACACCTCCGAT 3180
 Qy 3181 TACCTGCTCGACGTTGAGGCCGGGTTTGAGATCTGGCAAGGTGGTCAGGGCCTGGGCAGC 3240
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 3181 TACCTGCTCGACGTTGAGGCCGGGTTTGAGATCTGGCAAGGTGGTCAGGGCCTGGGCAGC 3240
 Qy 3241 AACTCGTTCAGCGTCTCCGTGACGAGCGGCACGTCCAGCCCGACACCGAGCCCGAGCCCG 3300
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 3241 AACTCGTTCAGCGTCTCCGTGACGAGCGGCACGTCCAGCCCGACACCGAGCCCGAGCCCG 3300
 Qy 3301 ACGCCGACACCGAGCCCGACGCCGACACCGTCTCCGAGCCCGACCCCGTCGCCGAGTCCG 3360
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 3301 ACGCCGACACCGAGCCCGACGCCGACACCGTCTCCGAGCCCGACCCCGTCGCCGAGTCCG 3360
 Qy 3361 ACCAGCTCGCCGTCGTCGTCGGGTGTGGCGTGCCGGGCGACGTATGTGGTGAATAGTGAT 3420
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 3361 ACCAGCTCGCCGTCGTCGTCGGGTGTGGCGTGCCGGGCGACGTATGTGGTGAATAGTGAT 3420
 Qy 3421 TGGGGTTCTGGGTTTACGGCGACGGTGACGGTGACGAATACCGGGAGCCGGGCGACGAAC 3480
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 3421 TGGGGTTCTGGGTTTACGGCGACGGTGACGGTGACGAATACCGGGAGCCGGGCGACGAAC 3480
 Qy 3481 GGGTGGACGGTGGCGTGGTCGTTTGGTGGGAATCAGACGGTCACGAACACTACTGGAACACT 3540
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 3481 GGGTGGACGGTGGCGTGGTCGTTTGGTGGGAATCAGACGGTCACGAACACTACTGGAACACT 3540
 Qy 3541 GCGTTGACCCAATCAGGTGCATCGGTGACGGCGACGAACCTGAGTTACAACAACGTGATC 3600

•
Db 3541 GCGTTGACCCAATCAGGTGCATCGGTGACGGCGACGAACCTGAGTTACAACAACGTGATC 3600
|||||
Qy 3601 CAACCGGGTCAGTCGACCACCTTCGGATTCAACGGAAGTTACTCAGGAACAAACGCCGCG 3660
|||||
Db 3601 CAACCGGGTCAGTCGACCACCTTCGGATTCAACGGAAGTTACTCAGGAACAAACGCCGCG 3660
Qy 3661 CCGACGCTCAGCTGCACAGCCAGCTGA 3687
|||||
Db 3661 CCGACGCTCAGCTGCACAGCCAGCTGA 3687

Title: US-09-917-383-4

RESULT 3

US-09-917-384-4

; Sequence 4, Application US/09917384

; GENERAL INFORMATION:

; APPLICANT: DING, SHI-YOU

; APPLICANT: ADNEY, WILLIAM S.

; APPLICANT: VINZANT, TODD B.

; APPLICANT: DECKER, STEPHEN R.

; APPLICANT: HIMMEL, MICHAEL E.

; TITLE OF INVENTION: THERMAL TOLERANT CELLULASE FROM ACIDOTHERMUS

; TITLE OF INVENTION: CELLULOLYTICUS

; FILE REFERENCE: 40170.6US01

; CURRENT APPLICATION NUMBER: US/09/917,384

; CURRENT FILING DATE: 2001-07-28

; NUMBER OF SEQ ID NOS: 14

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 4

; LENGTH: 423

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Description of Artificial Sequence: Segment of

; OTHER INFORMATION: GuxA

US-09-917-384-4

Query Match 100.0%; Score 2249; DB 23; Length 423;

Best Local Similarity 100.0%; Pred. No. 6.3e-209;

Matches 423; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 ATHVDNPNYAGATFFVNPYWAQEVQSEAAQNQTATLAAKMRVVSTYSTAVWMDRIAANGV 60
      |||
Db      1 ATHVDNPNYAGATFFVNPYWAQEVQSEAAQNQTATLAAKMRVVSTYSTAVWMDRIAANGV 60

Qy     61 NGGPGLTTYLDAALSQQQGTTPPEVIEIVYDLPGRDCAALASNGELPATAAGLQTYETQY 120
      |||
Db     61 NGGPGLTTYLDAALSQQQGTTPPEVIEIVYDLPGRDCAALASNGELPATAAGLQTYETQY 120

Qy    121 IDPIASILSNPKYSSLRIVTIIEPDSLPAVNTNMSIQACATAVPYQEYQIEYALTKLHAI 180
      |||
Db    121 IDPIASILSNPKYSSLRIVTIIEPDSLPAVNTNMSIQACATAVPYQEYQIEYALTKLHAI 180

Qy    181 PNVYIYMDAAHSGWLGWPNNASGYVQEVQKVLNASIGVNGIDGFVTNTANYTPLKEPFMT 240
      |||
Db    181 PNVYIYMDAAHSGWLGWPNNASGYVQEVQKVLNASIGVNGIDGFVTNTANYTPLKEPFMT 240

Qy    241 ATQQVGGQPVESANFYQWNPDIDEADYAVDLYSRLVAAGFPSSIGMLIDTLRNGWGGPNE 300
      |||
Db    241 ATQQVGGQPVESANFYQWNPDIDEADYAVDLYSRLVAAGFPSSIGMLIDTLRNGWGGPNE 300

Qy    301 PTGPSTATDVNTFVNQSKIDLRQHRGLWCNQNGAGLGQPPQASPTDFPNAHLDAYVWIKP 360
      |||
Db    301 PTGPSTATDVNTFVNQSKIDLRQHRGLWCNQNGAGLGQPPQASPTDFPNAHLDAYVWIKP 360

Qy    361 PGESDGTSAASDPTTGKKSDEMPDPTTYTTSYGVLTNALPNSPIAGQWFPAQFDQLVANAR 420
      |||
Db    361 PGESDGTSAASDPTTGKKSDEMPDPTTYTTSYGVLTNALPNSPIAGQWFPAQFDQLVANAR 420

Qy    421 PAV 423
      |||
Db    421 PAV 423
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Title: US-09-917-383-5

RESULT 2

US-09-917-384-5

; Sequence 5, Application US/09917384

; GENERAL INFORMATION:

; APPLICANT: DING, SHI-YOU

; APPLICANT: ADNEY, WILLIAM S.

; APPLICANT: VINZANT, TODD B.

; APPLICANT: DECKER, STEPHEN R.

; APPLICANT: HIMMEL, MICHAEL E.

; TITLE OF INVENTION: THERMAL TOLERANT CELLULASE FROM ACIDOTHERMUS

; TITLE OF INVENTION: CELLULOLYTICUS

; FILE REFERENCE: 40170.6US01

; CURRENT APPLICATION NUMBER: US/09/917,384

; CURRENT FILING DATE: 2001-07-28

; NUMBER OF SEQ ID NOS: 14

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 5

; LENGTH: 150

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Description of Artificial Sequence: Segment of

; OTHER INFORMATION: GuxA

US-09-917-384-5

Query Match 100.0%; Score 806; DB 23; Length 150;
Best Local Similarity 100.0%; Pred. No. 3.2e-80;
Matches 150; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VSGGLKVQYKNNDAPGDNQIKPGLQLVNTGSSSVDLSTVTVRYWFTRDGGSSSTLVYNCD 60
|
Db 1 VSGGLKVQYKNNDAPGDNQIKPGLQLVNTGSSSVDLSTVTVRYWFTRDGGSSSTLVYNCD 60

Qy 61 WAAMGCGNIRASFGSVNPATPTADTYLQLSFTGGTLAAGGSTGEIQNRVNKSDWSNFTET 120
|
Db 61 WAAMGCGNIRASFGSVNPATPTADTYLQLSFTGGTLAAGGSTGEIQNRVNKSDWSNFTET 120

Qy 121 NDYSYGTNTTFQDWTQVTVYVNGVLVWGTE 150
|
Db 121 NDYSYGTNTTFQDWTQVTVYVNGVLVWGTE 150

Title: US-09-917-383-8

RESULT 2

US-09-917-384-8

; Sequence 8, Application US/09917384

; GENERAL INFORMATION:

; APPLICANT: DING, SHI-YOU

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; TITLE OF INVENTION: THERMAL TOLERANT CELLULASE FROM ACIDOTHERMUS

; TITLE OF INVENTION: CELLULOLYTICUS

; FILE REFERENCE: 40170.6US01

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; FEATURE:

; OTHER INFORMATION: Description of Artificial Sequence: Segment of

; OTHER INFORMATION: GuxA

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Query Match 100.0%; Score 541; DB 23; Length 101;

Best Local Similarity 100.0%; Pred. No. 1.3e-51;

Matches 101; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GVACRATYVVNSDWGSGFTATVTVTNTGSRATNGWTVAWSFGGNQVTNYWNTALTQSGA 60

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Db 1 GVACRATYVVNSDWGSGFTATVTVTNTGSRATNGWTVAWSFGGNQVTNYWNTALTQSGA 60

Qy 61 SVTATNLYSNNVIQPGQSTTFGFNGSYSGTNAAPTL SCTAS 101

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Db 61 SVTATNLYSNNVIQPGQSTTFGFNGSYSGTNAAPTL SCTAS 101